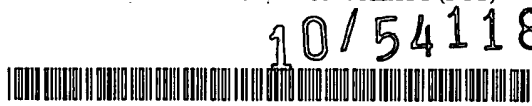


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26 January 2006For two-letter codes and other abbreviations, refer to the "Guid-  
ance Notes on Codes and Abbreviations" appearing at the begin-  
ning of each regular issue of the PCT Gazette.

(54) Title: SILK FIBROIN MATERIALS AND USE THEREOF

(57) Abstract: The present invention provides processes for producing porous silk fibroin scaffold material. The porous silk fibroin scaffold can be used for tissue engineering. The porosity of the silk fibroin scaffolds described herein can be adjusted as to mimic the gradient of densities found in natural tissue. Accordingly, methods for engineering of 3-dimensional tissue, e.g. bone and cartilage, using the silk fibroin scaffold material are also provided.



WO 2004/062697 A3

# INTERNATIONAL SEARCH REPORT

International application No.

PCT/US04/00255

## A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : B32B 27/04; C12N 5/00, 5/02  
US CL : 424/423; 435/325, 395; 442/128

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 424/423; 435/325, 395; 442/128

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched  
REGISTRY

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)  
Please See Continuation Sheet

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A, P	DAL Pra Ilaria et al. Silk fibroin-coated Three-dimensional Polyurethane Scaffolds for Tissue Engineering: Interactions with Normal Human Fibroblasts. Tissue Engineering. December 2003, Volume 9, Number 6, Pages 1113-1121. Entire Document, Especially Abstract, Lines 1-15.	1-59
Y, P	US 2004/224406 A1 (ALTMAN et al.) 11 November 2004 (11.11.2004), Entire Document, especially Abstract, Lines 1-11.	1-59

☐ Further documents are listed in the continuation of Box C.

☐ See patent family annex.

* Special categories of cited documents:	
"A" document defining the general state of the art which is not considered to be of particular relevance	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"E" earlier application or patent published on or after the international filing date	"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
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"O" document referring to an oral disclosure, use, exhibition or other means	"&" document member of the same patent family
"P" document published prior to the international filing date but later than the priority date claimed	

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# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/US04/00255

Continuation of B. FIELDS SEARCHED Item 3:

WEST:

DWPI, EPAB, JPAB, PGPB, USOC, USPT

STN:

APOLLIT, BIOSIS, CAPLUS, CEN, CIN, CONSCI, DISSABS, EMBASE, JAPIO, JICST-EPLUS, MEDLINE, PROMPT, RAPRA, SCISEARCH, WPIDS

Search Strategy:

fibroin, silk, porous, three-dimensional, pores, tissue, bone, porosity, porosity, fiber, cartilage, chondrocytes, tissue engineering, silk worm, Bombyx mori, spider, engineered silk, polymer, PEG, polyurethane, additive